

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

AS
Claim 1 (currently amended) An intelligent network for use with an ATM network to set up an ATM switched virtual circuit to provide ~~VT~~voice telephony over ATM services and closed user group services, the intelligent network comprising:

a multi-service control point operable to receive an input extracted from an input ATM setup message that includes a called party phone number value and a ~~VT~~voice telephony over ATM designator, execute a closed user group service to determine whether to authorize a ~~VT~~voice telephony over ATM call between a calling party and a called party, and generate an output in response for use in generating an output ATM setup message;

an ATM signaling intercept processor operable to intercept the input ATM setup message from an ingress ATM edge switch of the ATM network, extract the input from the input ATM setup message, communicate the input to the multi-service control point, receive the output generated by the multi-service control point, generate the output ATM setup message using the output, and communicate the output ATM setup message to the ingress ATM edge switch of the ATM network; and

a service administration operable to provision the multi-service control point and the ATM signaling intercept processor.

Claim 2 (currently amended) The intelligent network of ~~Claim~~ claim 1, wherein the multi-service control point, in order to execute the closed user group service, is operable to perform the following:

determine ~~[[the]]~~ closed user group identifiers for ~~[[a]]~~ the calling party,
determine ~~[[the]]~~ closed user group identifiers for ~~[[a]]~~ the called party,
locate a common closed user group identifier that is common to the calling party and the called party,

analyze ~~[[the]]~~ privileges of the calling party in the common closed user group to determine if the calling party can make calls to other users of the common closed user group, and

analyze ~~[[the]]~~ privileges of the called party in the common closed user group to determine if the called party can receive calls from other users of the common closed user group,

and wherein a ~~VT~~voice telephony over ATM call between the calling party and the called party is completed if a common closed user group identifier is located, the calling party has privileges to call other users of the common closed user group, and the called party has privileges to receive calls from other users of the common closed user group.

AS
Claim 3 (currently amended) The intelligent network of ~~Claim~~ claim 2, wherein the multi-service control point, in order to execute the closed user group service, is operable to further perform the following:

examine all remaining privileges for all privilege sets of closed user groups in which the calling party is a member and the called party is not a member to determine if the calling party can make calls to other users outside of a closed user group, and

examine all remaining privileges for all privilege sets of closed user groups in which the called party is a member and the calling party is not a member to determine if the called party can receive calls from other users outside of a closed user group, and wherein a ~~VT~~voice telephony over ATM call between the calling party and the called party is completed if the calling party can make calls to other users outside of a closed user group, and the called party can receive calls from other users outside of a closed user group.

Claim 4 (currently amended) The intelligent network of ~~Claim~~ claim 1, wherein the input includes a calling party phone number value.

Claim 5 (currently amended) The intelligent network of ~~Claim~~ claim 3, wherein the called party phone number value is stored in a called party subaddress parameter of the input ATM setup message, the ~~VT~~voice telephony over ATM designator is stored in a called party number parameter of the input ATM setup message, the calling party phone number value is stored in a calling party subaddress parameter of the input ATM setup message, and the ATM address of the customer premises equipment of the calling party ~~CPE~~ is stored in a calling party number parameter of the input ATM setup message.

Claim 6 (currently amended) The intelligent network of ~~Claim~~ claim 1, wherein the multi-service control point determines if the input ATM setup message requests an ~~SVC~~ a

switched virtual circuit for VT~~o~~A voice telephony over ATM by analyzing the VT~~o~~A voice telephony over ATM designator portion of the input.

Claim 7 (currently amended) The intelligent network of ~~Claim~~ claim 1, wherein the multi-service control point further includes:

AS a database that correlates the called party phone number value with an ATM address of customer premises equipment of the called party CPE, and wherein the multi-service control point includes the ATM address of the customer premises equipment of the called party CPE in the output.

Claim 8 (currently amended) The intelligent network of ~~Claim~~ claim 1, wherein the multi-service control point includes various applications operable to provide the VT~~o~~A voice telephony over ATM services through analyzing the input to generate the output.

Claim 9 (currently amended) A method for providing VT~~o~~A voice telephony over ATM and closed user group services using an intelligent network and a switched virtual circuit over an ATM network, the method comprising:

intercepting an input ATM setup message from an ingress ATM edge switch of the ATM network;

extracting information from the input ATM setup message;

analyzing the information to determine if the input ATM setup message is a request to set up an ~~SVC~~ a switched virtual circuit for VT~~o~~A voice telephony over ATM;

executing a closed user group service to determine whether to authorize a VT~~o~~A call between a calling party and a called party;

determining an ATM address of a customer premises equipment of the called party CPE;

generating an output ATM setup message that includes the ATM address of a the customer premises equipment of the called party CPE; and

communicating the output ATM setup message to the ingress ATM edge switch of the ATM network.

Claim 10 (currently amended) The method of ~~Claim~~ claim 9, wherein executing a closed user group service to determine whether to authorize a ~~VTtA~~ voice telephony over ATM call between a the calling party and a the called party further includes:

determining [[the]] closed user group identifiers for [[a]] the calling party;

determining [[the]] closed user group identifiers for [[a]] the called party;

locating a common closed user group identifier that is common to the calling party and the called party;

analyzing [[the]] privileges of the calling party in the common closed user group to determine if the calling party can make calls to other users of the common closed user group; and

analyzing [[the]] privileges of the called party in the common closed user group to determine if the called party can receive calls from other users of the common closed user group, and wherein a ~~VTtA~~ voice telephony over ATM call between the calling party and the called party is completed if a common closed user group identifier is located, the calling party has privileges to call other users of the common closed user group, and the called party has privileges to receive calls from other users of the common closed user group.

Claim 11 (currently amended) The method of ~~Claim~~ claim 10, wherein executing a closed user group service to determine whether to authorize a ~~VTtA~~ voice telephony over ATM call between [[a]] the calling party and [[a]] the called party further includes:

examining all remaining privileges for all privilege sets of closed user groups in which the calling party is a member and the called party is not a member to determine if the calling party can make calls to other users outside of a closed user group; and

examining all remaining privileges for all privilege sets of closed user groups in which the called party is a member and the calling party is not a member to determine if the called party can receive calls from other users outside of a closed user group, and wherein a ~~VTtA~~ the voice telephony over ATM call between the calling party and the called party is completed if the calling party can make calls to other users outside of a closed user group, and the called party can receive calls from other users outside of a closed user group.

Claim 12 (currently amended) A method for providing a closed user group service to authorize ~~VT~~voice telephony over ATM calls using an intelligent network and a switched virtual circuit over an ATM network, the method comprising:

intercepting an input ATM setup message from an ingress ATM edge switch of the ATM network;

extracting information from the input ATM setup message;

determining ~~the~~ closed user group identifiers for a calling party;

determining ~~the~~ closed user group identifiers for a called party;

AS locating a common closed user group identifier that is common to the calling party and the called party;

analyzing ~~the~~ privileges of the calling party in the common closed user group to determine if the calling party can make calls to other users of the common closed user group; ~~and~~

analyzing ~~the~~ privileges of the called party in the common closed user group to determine if the called party can receive calls from other users of the common closed user group, and wherein a ~~VT~~voice telephony over ATM call between the calling party and the called party is completed if a common closed user group identifier is located, the calling party has privileges to call other users of the common closed user group, and the called party has privileges to receive calls from other users of the common closed user group;

generating an output ATM setup message that includes an ATM address of customer premises equipment of the called party when the voice telephony over ATM call between the calling party and the called party is to be completed; and

communicating the output ATM setup message to the ingress ATM edge switch of the ATM network.

Claim 13 (currently amended) The method of ~~Claim~~ claim 12, wherein the calling party does not have privileges to call other users of the common closed user group, the method further comprising:

locating another common closed user group identifier that is common to the calling party and the called party and proceeding to analyzing the privileges of the calling party.

Claim 14 (currently amended) The method of ~~Claim~~ claim 12, wherein the called party does not have privileges to receive calls from other users of the common closed user group, the method further comprising:

locating another common closed user group identifier that is common to the calling party and the called party and proceeding to analyzing the privileges of the calling party.

Claim 15 (currently amended) The method of ~~Claim~~ claim 12, wherein when a common closed user group identifier cannot be located that is common to the calling party and the called party, the method further comprising:

AS examining all remaining privileges for all privilege sets of closed user groups in which the calling party is a member and the called party is not a member to determine if the calling party can make calls to other users outside of a closed user group; and

examining all remaining privileges for all privilege sets of closed user groups in which the called party is a member and the calling party is not a member to determine if the called party can receive calls from other users outside of a closed user group, and wherein a ~~VToA~~ voice telephony over ATM call between the calling party and the called party is completed if the calling party can make calls to other users outside of a closed user group, and the called party can receive calls from other users outside of a closed user group.

Claim 16 (currently amended) The method of ~~Claim~~ claim 15, wherein a ~~VToA~~ voice telephony over ATM call fails if the calling party does not have privileges to make calls to other users outside of a closed user group.

Claim 17 (currently amended) The method of ~~Claim~~ claim 15, wherein a ~~VToA~~ voice telephony over ATM call fails if the called party does not have privileges to receive calls from other users outside of a closed user group.

Claim 18 (canceled)

Claim 19 (currently amended) The method of ~~Claim~~ claim 12, wherein the ATM network does not provide an interlocking code.

Claims 20-25 (canceled)

Claim 26 (new) An intelligent network for use with an ATM network for providing voice telephony over ATM and closed user group services via an ATM network, the intelligent network comprising:

an ATM signaling intercept processor; and

a multi-service control point configured to:

receive information extracted from an input ATM setup message,

analyze the information to determine whether the input ATM setup message is a request for a switched virtual circuit for a voice telephony call over ATM,

execute a closed user group service to determine whether to authorize the voice telephony call over ATM between a calling party and a called party,

determine an ATM address of customer premises equipment of the called party,

generate an output message that includes the ATM address of the customer premises equipment of the called party when the voice telephony over ATM call between the calling party and the called party is to be completed, and

communicate the output message to the ATM signaling intercept processor, the ATM signaling intercept processor is configured to:

intercept the input ATM setup message from an ingress ATM edge switch,

extract the information from the input ATM setup message,

communicate the extracted information to the multi-service control point,

receive the output message from the multi-service control point,

generate an output ATM setup message that includes the ATM address of the customer premises equipment of the called party, and

communicate the output ATM setup message to the ingress ATM edge switch.

Claim 27 (new) The intelligent network of claim 26, wherein when the multi-service control point executes the closed user group service to determine whether to authorize a voice telephony over ATM call between the calling party and the called party, the multi-service control point is further configured to:

determine closed user group identifiers for the calling party,

determine closed user group identifiers for the called party,

locate a common closed user group identifier that is common to the calling party and the called party,

analyze privileges of the calling party in the common closed user group to determine if the calling party can make calls to other users of the common closed user group, and

analyze privileges of the called party in the common closed user group to determine if the called party can receive calls from other users of the common closed user group.

AS Claim 28 (new) The intelligent network of claim 27, wherein when the multi-service control point executes the closed user group service, the multi-service control point is further configured to:

examine all remaining privileges for all privilege sets of closed user groups in which the calling party is a member and the called party is not a member to determine if the calling party can make calls to other users outside of a closed user group, and

examine all remaining privileges for all privilege sets of closed user groups in which the called party is a member and the calling party is not a member to determine if the called party can receive calls from other users outside of a closed user group, and wherein the voice telephony over ATM call between the calling party and the called party is completed if the calling party can make calls to other users outside of a closed user group, and the called party can receive calls from other users outside of a closed user group.
